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DATE / REF
2017-01-11 / 9297

Mr. Adam Bier
6 Streatley Place
London
NW3 1HP

Dear Mr. Bier,

Re: Streatley Place - Daylight and Overshadowing Impacts Assessments

GIA have been instructed to provide an assessment of the possible daylight and sunlight impacts caused by the proposed development at Streatley Place on the neighbouring Streatley Flats and New Court Flats. This assessment has been undertaken with reference to both the current existing levels of light and the 2015 consented scheme.

As was previously presented by this practice in 2015, each assessment has been undertaken within two scenarios; one considering the impact of trees and the second reviewing the impacts should no trees be considered. Of these it is our opinion that the assessment including trees is the most pertinent as the trees on site form a dense obstruction to light and so omitting these provides an unrealistic scenario with which to compare.

In order to understand the possible impacts in terms of daylight, Vertical Sky Component (VSC) façade assessments have been undertaken on the relevant façades of both buildings in order to ascertain the levels of daylight both in the existing and proposed conditions. From this information, and as provided previously, five windows have been identified as the most likely to be adversely impacted and the figures for these have been provided on the subsequent pages.

These five windows have also been assessed for Annual Probable Sunlight Hours (APSH) in order to understand the potential levels of sunlight reaching the rooms behind. It should be noted here that sunlight assessments are generally only undertaken within living rooms, as this is where the majority of time is spent by occupants and therefore where the light will be valued most. As it is not known for certain which of these windows serve living rooms, sunlight assessments have been undertaken for all.

The BRE publication BR209 "Site Layout Planning for Daylight and Sunlight" (2011) sets out the recommended criteria for the assessment of daylight and suggests that, should the levels of VSC reduce below the recommended 27% and see a reduction of greater than 20%, then daylight may be adversely affected.

New Court Flats

The window identified as being impacted the greatest is the western-most ground floor window. Further assessment has shown a VSC loss (without the trees being considered) of 22%, which is only slightly in breach of guidance. As the development involves the removal of a number of large trees, further studies were undertaken to show that if we were to take this into account there is in fact a minor gain of 1.7%. The levels retained are in fact higher than those consented in 2015 and so this can be considered an improvement.

The levels of sunlight reaching this window are also excellent in the proposed scenario both with and without the trees being considered and as such they will continue to be very well sunlit, fully in line with BRE guidance.

Overall we consider the daylight and sunlight impacts to the New Court Flats to be negligible and in fact beneficial when compared to the consented position.

Streatley Flats

The windows identified as being impacted the most and therefore possibly in breach of the BRE guidance are the southernmost four windows on the ground and first floors.

The numerical assessments undertaken have shown that two of these windows see levels of VSC within the 20% recommended by the BRE and so any impact here will be negligible. The two windows seeing a VSC loss greater than 20% are the southern-most ground and first floor windows, which see a percentage loss of 31% and 26% respectively.

When compared to the 2015 consent, however, the levels are very similar with an alteration of only 8-12%, which allows us to conclude the difference between consented and proposed to be negligible. In addition, it should be noted that the assessments with trees taken into consideration have in fact shown the first floor seeing an increase in light when compared to the existing scenario, whilst the ground floor window in question is BRE compliant with a loss of only 15% and a very good retained level considering its Central London alley outlook.

In terms of sunlight, as these four windows are within 90 degrees of due south, they have all been assessed in terms of APSH, however it should be noted that their orientation precludes any significant afternoon sun and so the majority of sunlight they currently enjoy will be during the morning hours. During the morning the sun is lower in the sky and so the blank nature of the site leads these windows to see very good levels of sunlight in the existing scenario when the trees are not considered. In this scenario, even a modest building is expected to have a detrimental effect of the levels of sunlight enjoyed and this ought to be taken into consideration when reviewing the data. Here it should also be noted that the proposed massing is of a similar scale to the Streatley Flats and significantly smaller than the New Court Flats.

The technical assessments undertaken have shown that the first floor windows (windows 4 and 5) all retain excellent levels of sunlight, again well above the levels recommended by the BRE and so no further discussion is considered necessary.

Window 2 sees excellent levels of sunlight overall (32% Total APSH), well above the 25% recommended by the BRE, but falls just short of the 5% Winter APSH recommended. It is therefore only the reduction in winter sunlight leading to this window technically falling short of recommendation. As discussed above, owing to the window's orientation and the site's blank nature, this would be a consequence of any development on this site. The retained levels are again very similar to those consented in 2015 and the window is considered to retain excellent levels of sunlight considering its orientation and location.

Window 3 sees greater reductions in sunlight than other windows, owing to its position at ground floor level and set back nature, increasing the effect of shadow from the existing neighbouring property to the south. The percentage level of impact to this window is therefore greater and it retains 10% total APSH, an absolute loss of 6% when compared to the consented scheme. Whilst it is more significant, this impact is in line with expectations for a ground floor, east facing and setback alleyway window. In addition, this window is understood to serve a bedroom and sunlight losses to bedrooms are generally considered to be of lesser significance than living rooms. With the adjacent window also serving this flat the occupants will still have access to good levels of annual sunlight.

Of the nine windows within this façade, therefore, the retained levels of daylight are very similar to those consented in 2015 and all but one will retain excellent levels of annual sunlight. The one window with lower levels of sunlight is on the lower floor, set back from the immediate neighbour to the south which itself is serving to cause shadow and we understand to serve a bedroom. Overall the daylight and sunlight impacts to the Streatley Flats are considered minor and the building overall will continue to enjoy very good levels of daylight and sunlight.

Overshadowing of Streatley Place

In order to understand the impact of the proposed development on Streatley Place itself, Sun Hours on Ground assessments have been undertaken in the existing, consented and proposed conditions, both with and without the trees in place.

These show very low levels of sunlight in the existing condition when the trees are considered and the levels of sunlight in fact increase with the consent, which included removing many of these trees. The proposed development creates some additional shadow at the northern end when compared to the consent, however this is still a significant lessening of the shade caused by the trees. The effect is therefore still positive.

Kind regards

Yours sincerely

For and on behalf of GIA

Alex Buckley

Partner

Alex.Buckley@gia.uk.com

Daylight and Overshadowing Impacts Assessments

Streatley Place

Project No: 9297

11 January 2017

Client	Adam Bier
Architect	Martin Evans Architects
Project Title	Streatley Place
Project Number	9297
Report Title	Daylight and Overshadowing Impacts Assessments
Dated	11 January 2017

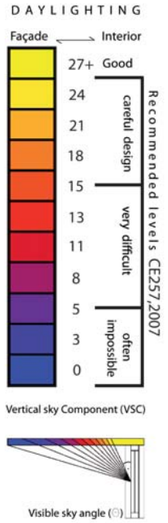
Prepared by	KS/AB
Checked by	AB
Type	Planning

Revisions		Date:	Notes:	Signed:

Assessments Considering Trees

Figure 1: Existing

Figure 2: Proposed



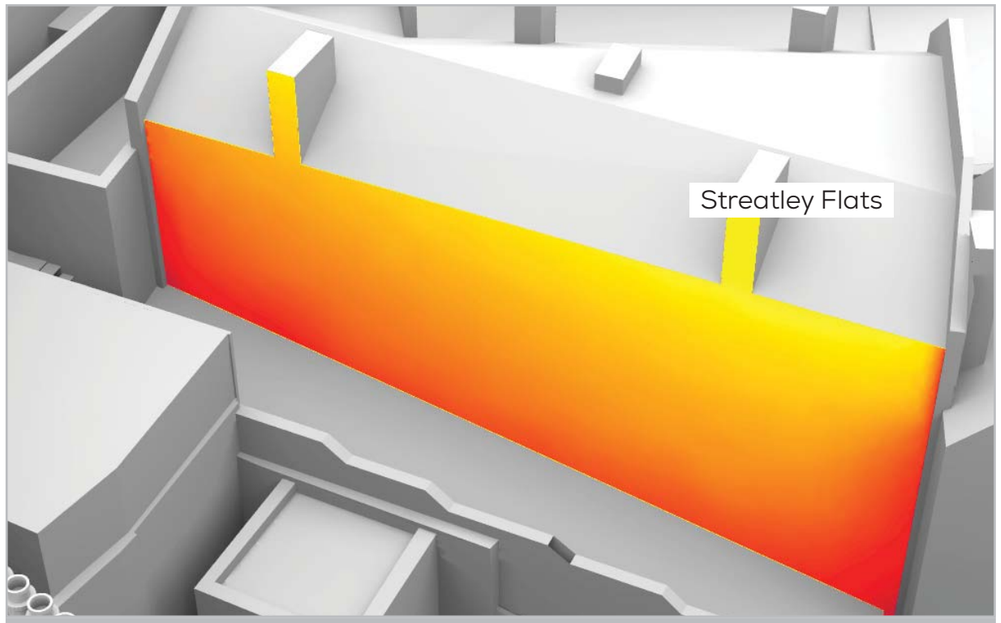


Figure 3: Existing

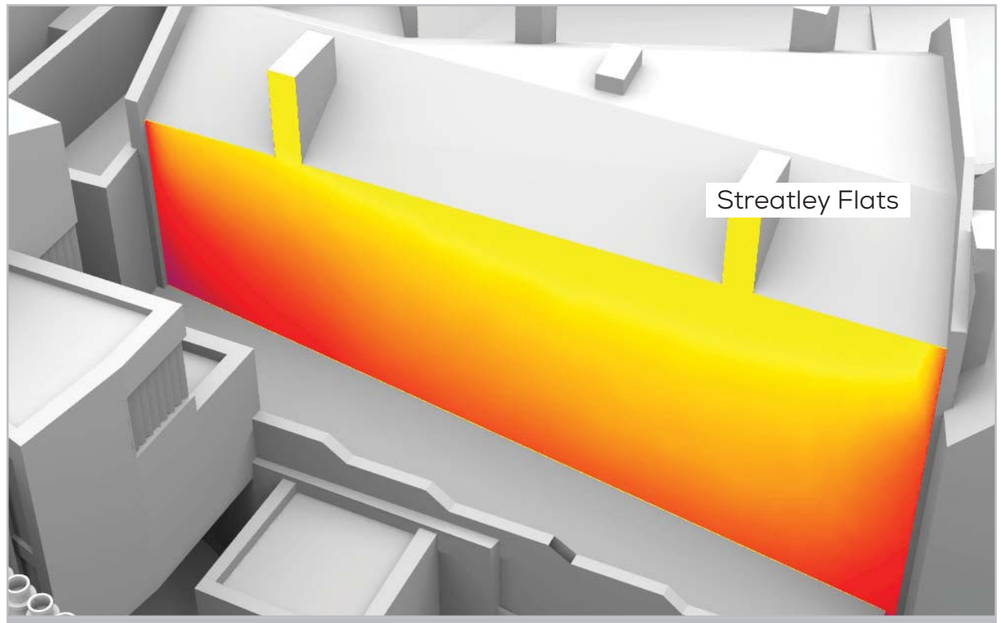
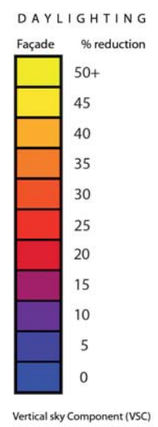


Figure 4: Proposed



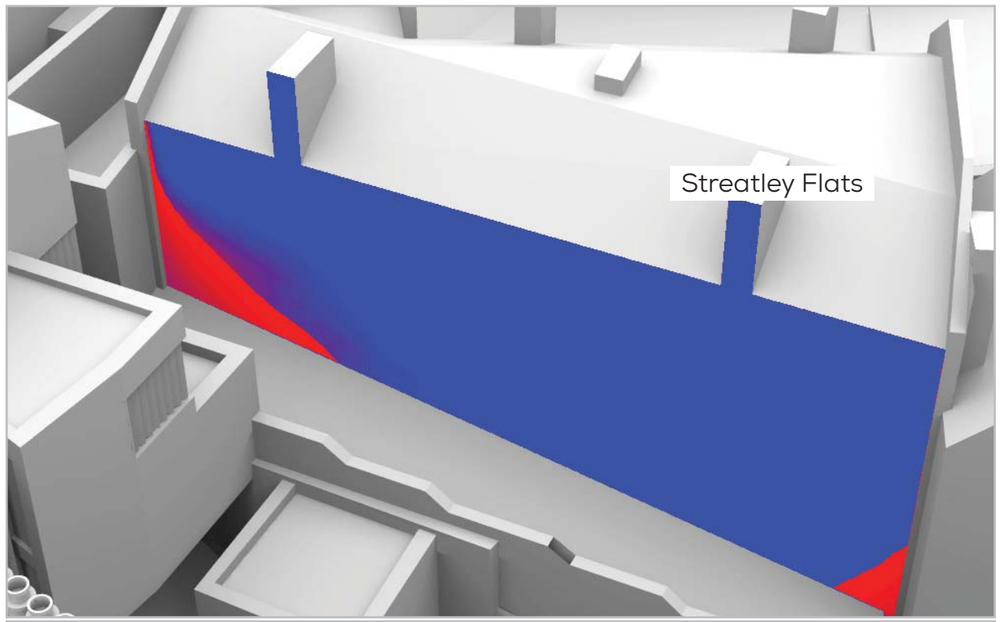
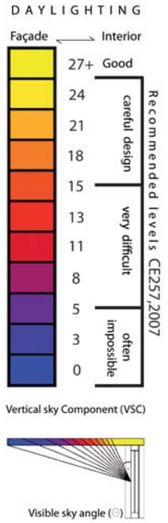


Figure 5: Percentage Loss



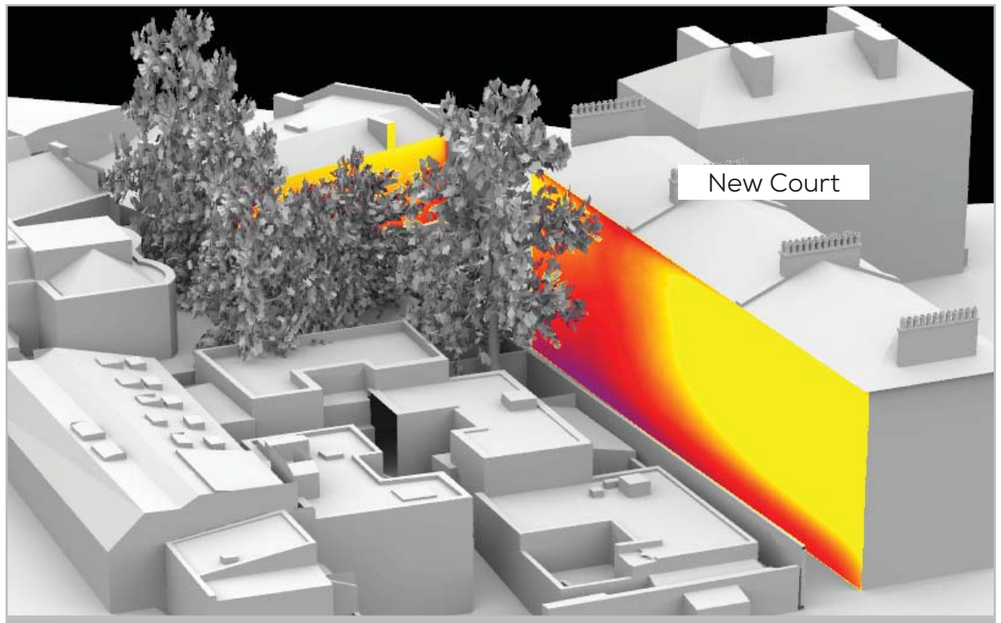


Figure 6: Existing

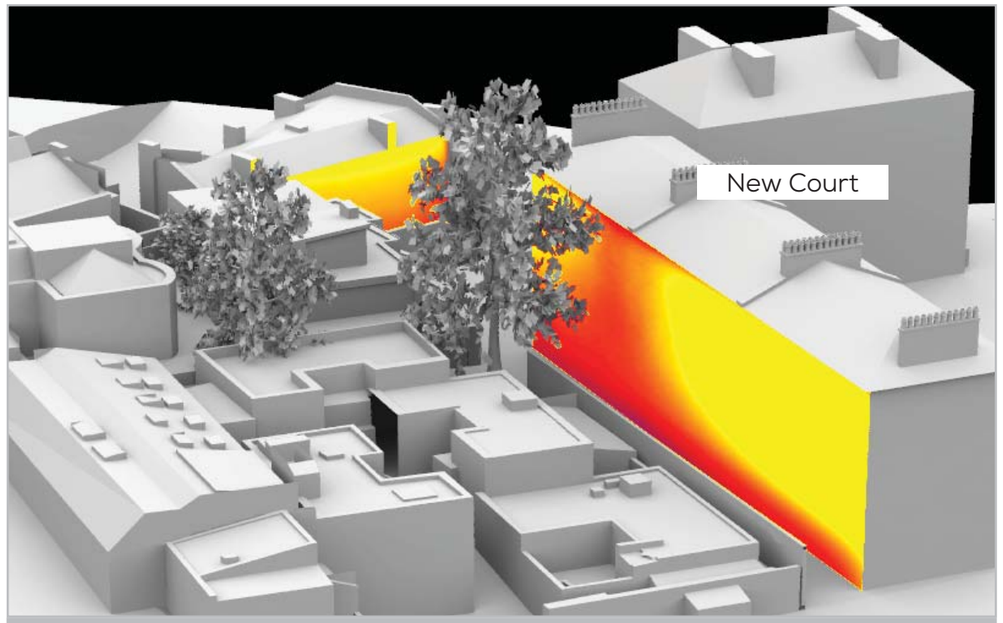
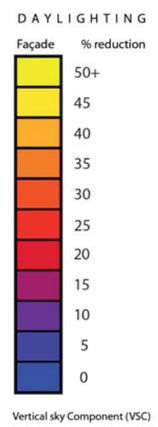


Figure 7: Proposed



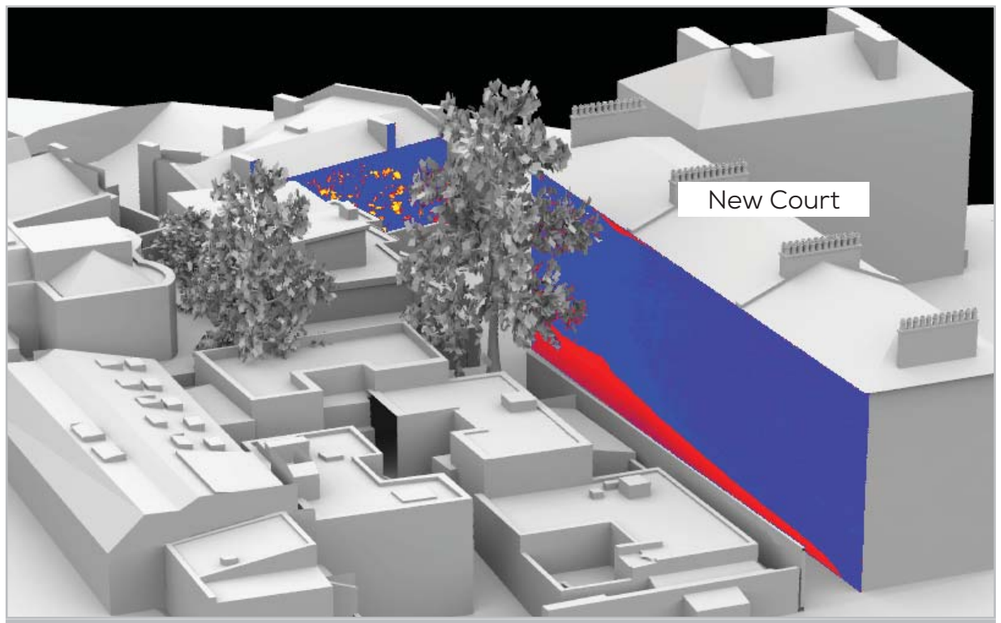
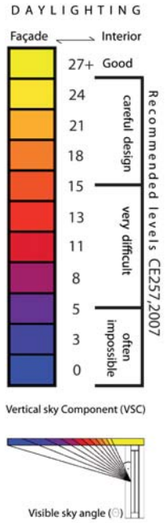


Figure 8: Percentage Loss



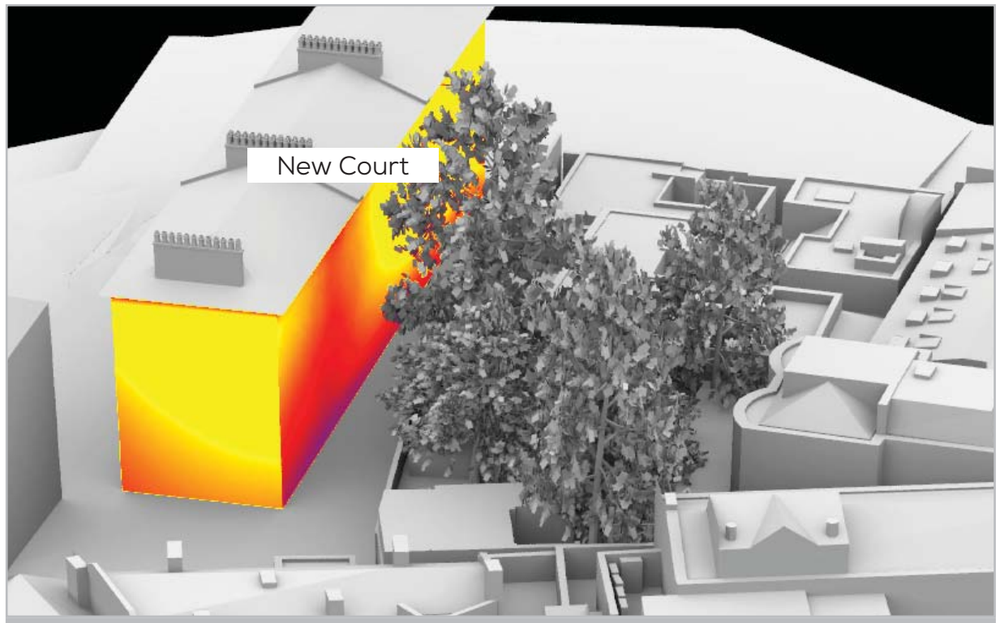


Figure 9: Existing

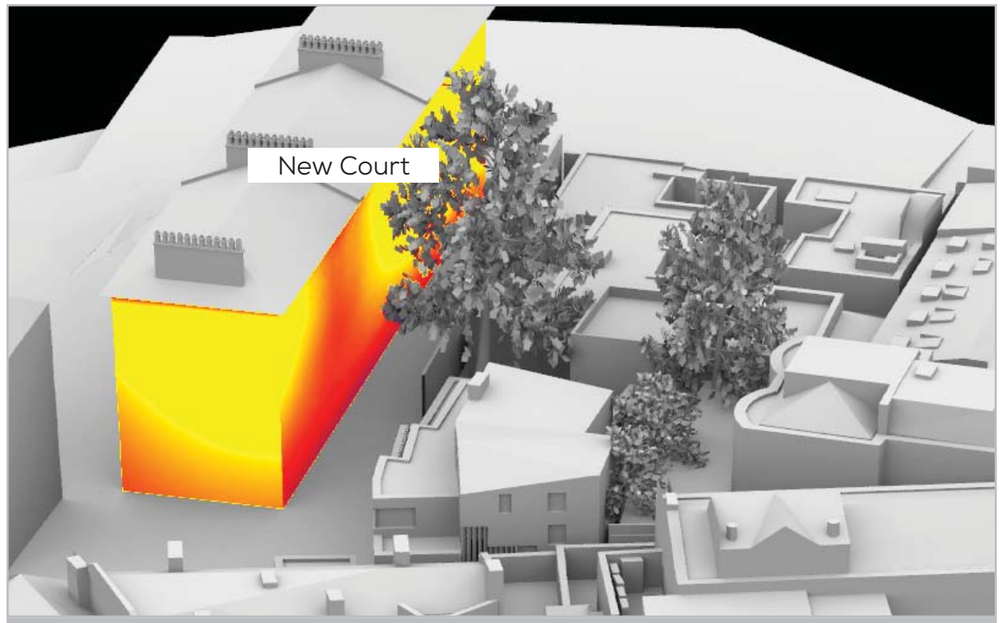
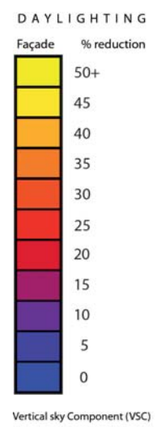


Figure 10: Proposed



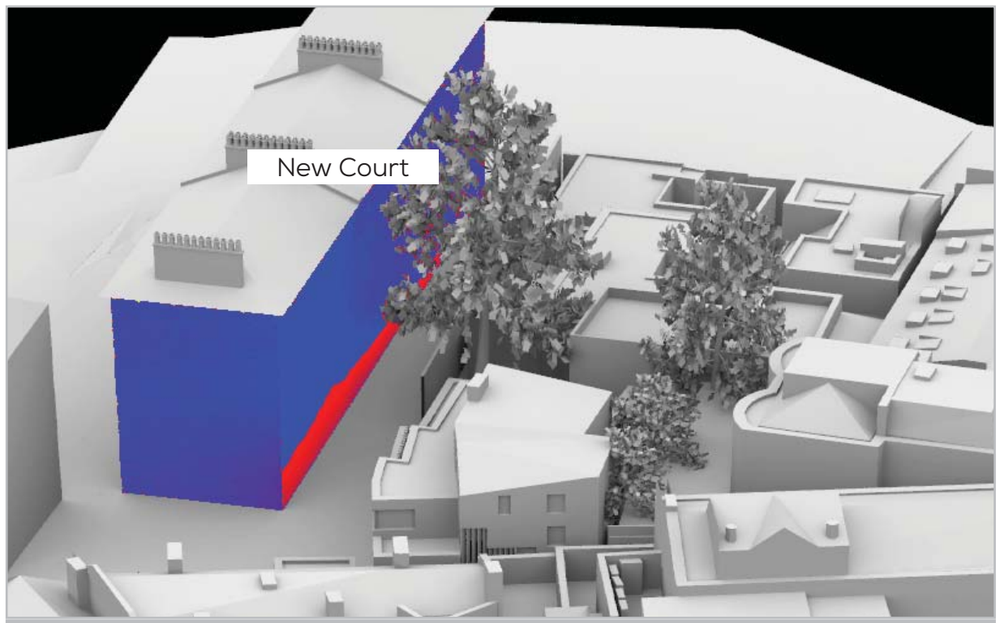


Figure 11: Percentage Loss

VSC	Existing	Proposed	Loss	% Loss
Window 1	13.8	14.0	-0.2	-1.7
Window 2	20.9	20.5	0.4	1.8
Window 3	17.1	14.5	2.6	15.3
Window 4	24.9	25.8	-0.9	-3.6
Window 5	21.7	22.6	-0.9	-4.1

Table 1: VSC Assessment Results

APSH	Existing		Proposed		Loss		% Loss	
	Total	Winter	Total	Winter	Total	Winter	Total	Winter
Window 1	32	9	30	7	2	2	6.3	22.2
Window 2	32	4	31	2	1	2	3.1	50
Window 3	17	0	10	0	7	0	41.2	0
Window 4	40	6	42	8	-2	-2	-5	-33.3
Window 5	27	3	36	5	-9	-2	-33.3	-66.7

Table 2: APSH Assessment Results

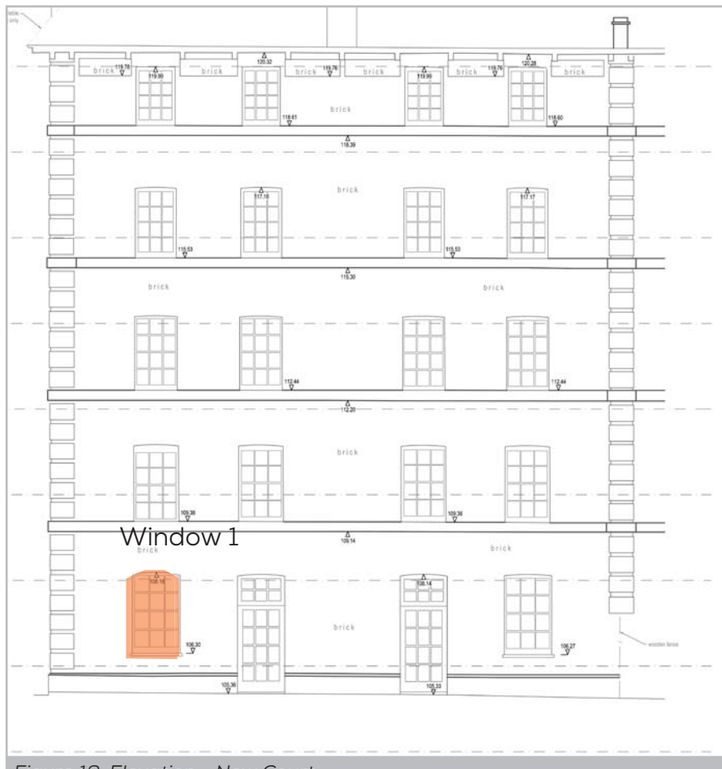


Figure 12: Elevation - New Court

Figure 13: Elevation - Streatley Flats

VSC	Consented	Proposed	Loss	% Loss
Window 1	13.1	14.0	-0.9	-7
Window 2	21.7	20.5	1.2	5.6
Window 3	16.4	14.5	1.9	11.5
Window 4	26.5	25.8	0.7	2.6
Window 5	24.1	22.6	1.5	6.2

Table 3: VSC Assessment Results

APSH	Consented		Proposed		Loss		% Loss	
	Total	Winter	Total	Winter	Total	Winter	Total	Winter
Window 1	26	8	30	7	-4	1	-15.4	12.5
Window 2	33	2	31	2	2	0	6.1	0
Window 3	16	0	10	0	6	0	37.5	0
Window 4	41	6	42	8	-1	-2	-2.4	-33.3
Window 5	38	4	36	5	2	-1	5.3	-25

Table 4: APSH Assessment Results

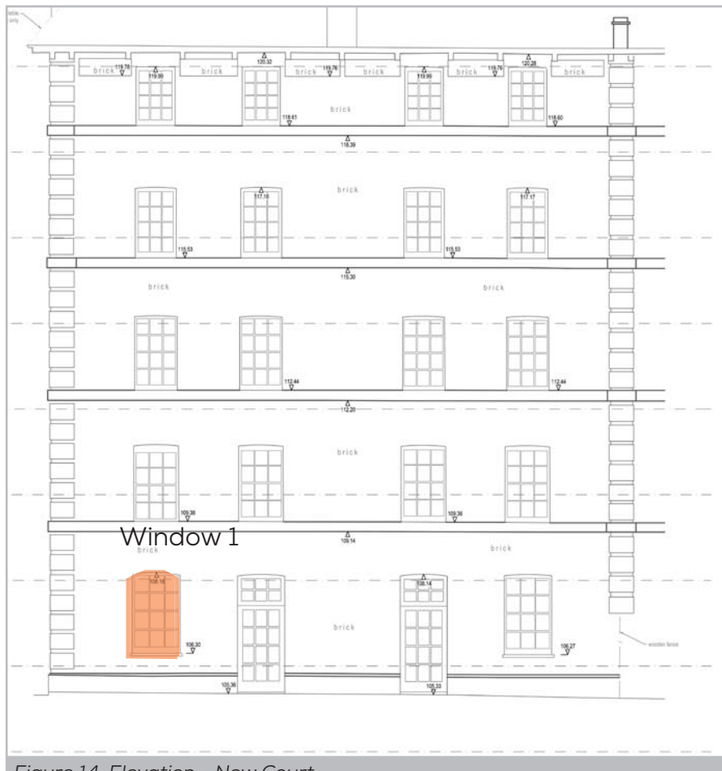


Figure 14: Elevation - New Court

Figure 15: Elevation - Streatley Flats

Figure 16: Top View - Existing

Figure 17: Top View - Consented

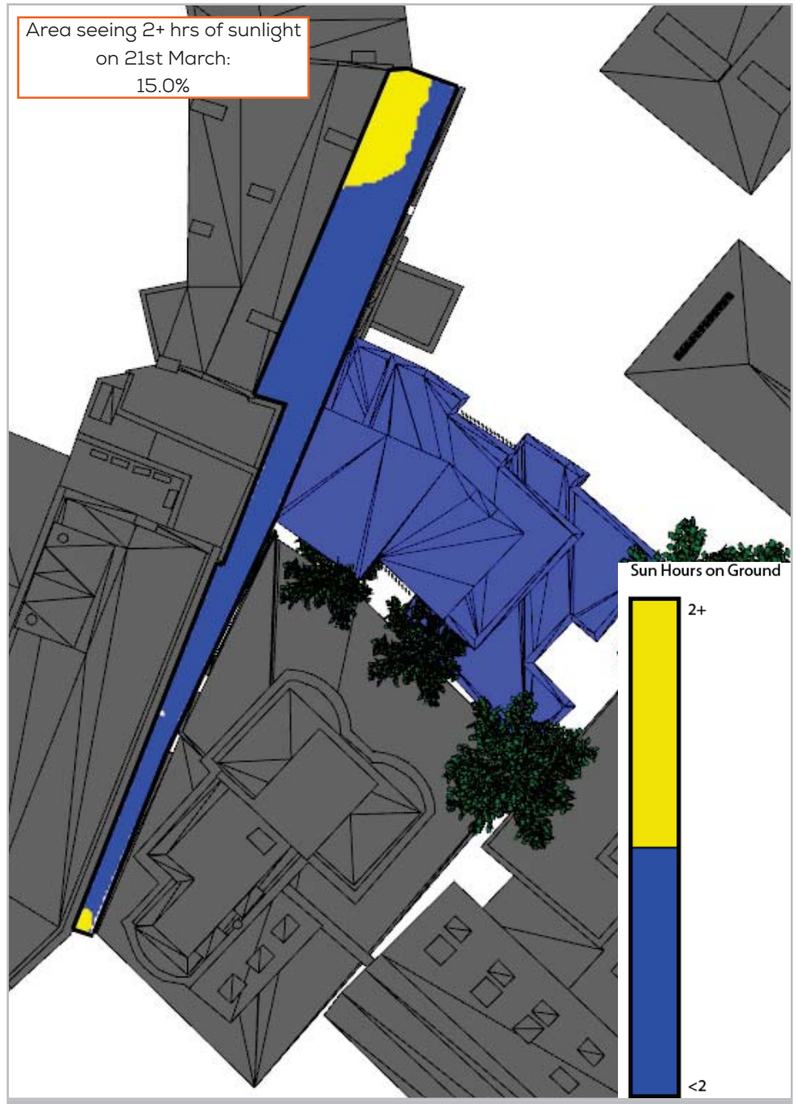


Figure 18: Top View - Proposed

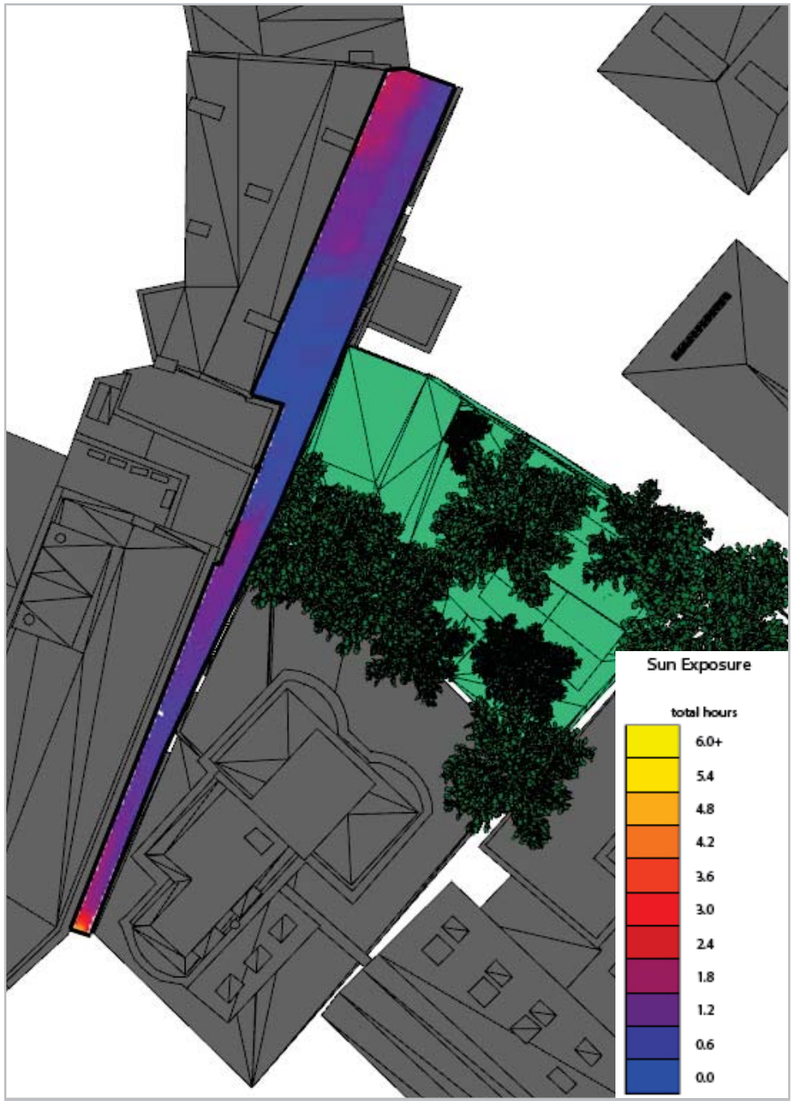


Figure 19: Top View - Existing

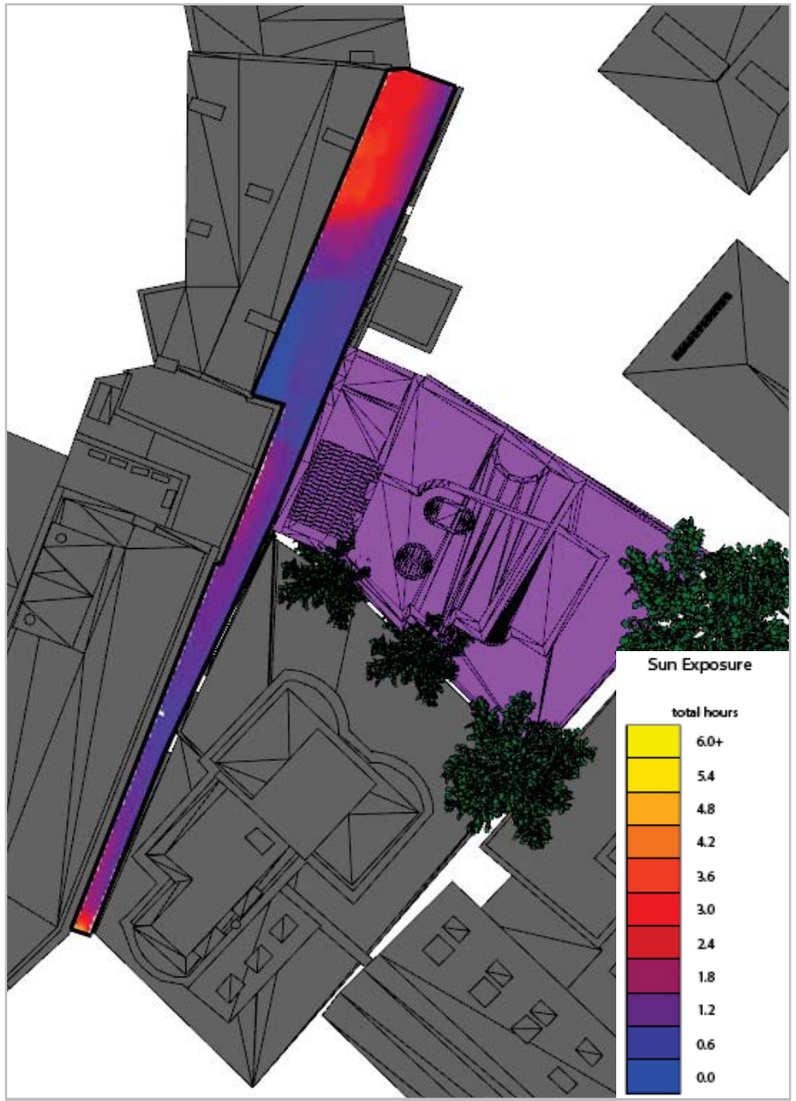


Figure 20: Top View - Consented

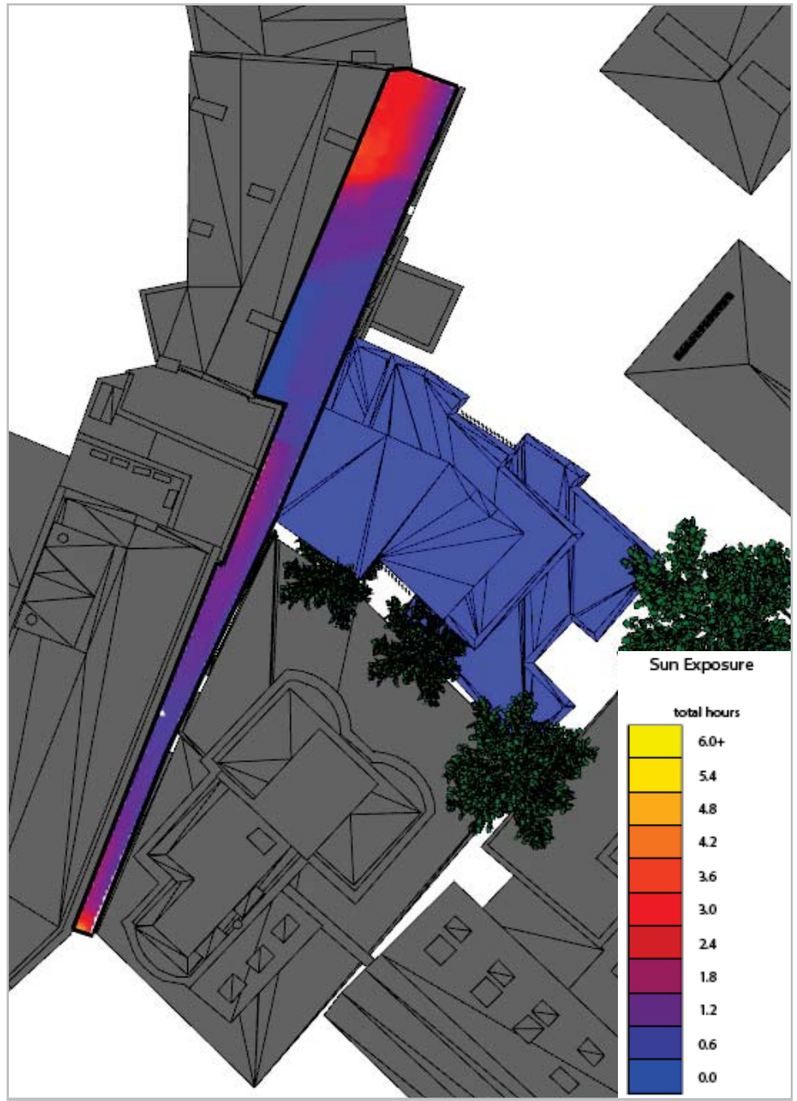


Figure 21: Top View - Proposed

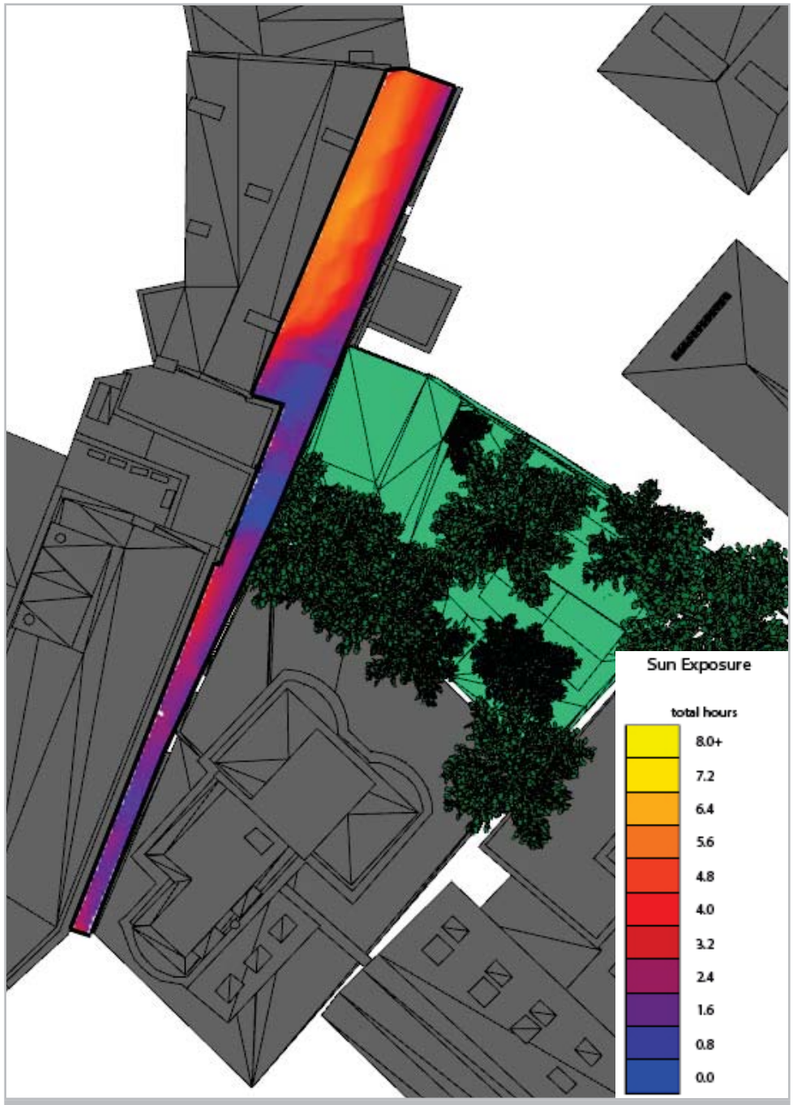


Figure 22: Top View - Existing

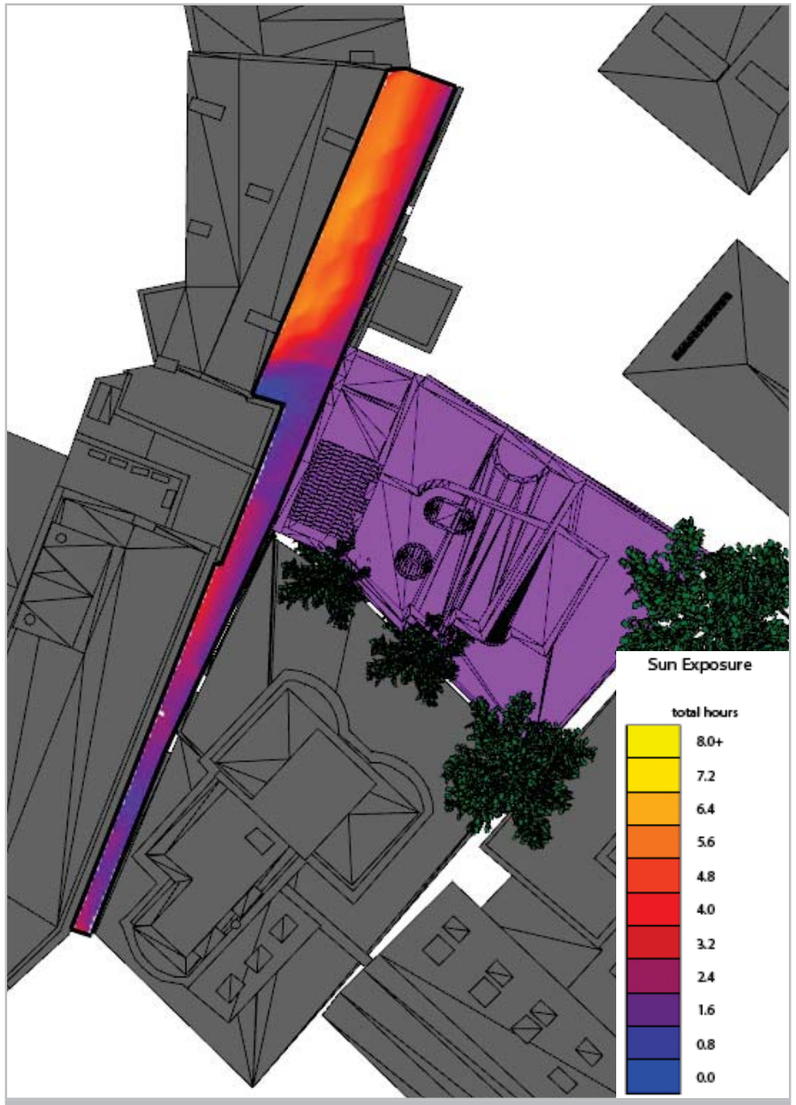


Figure 23: Top View - Consented

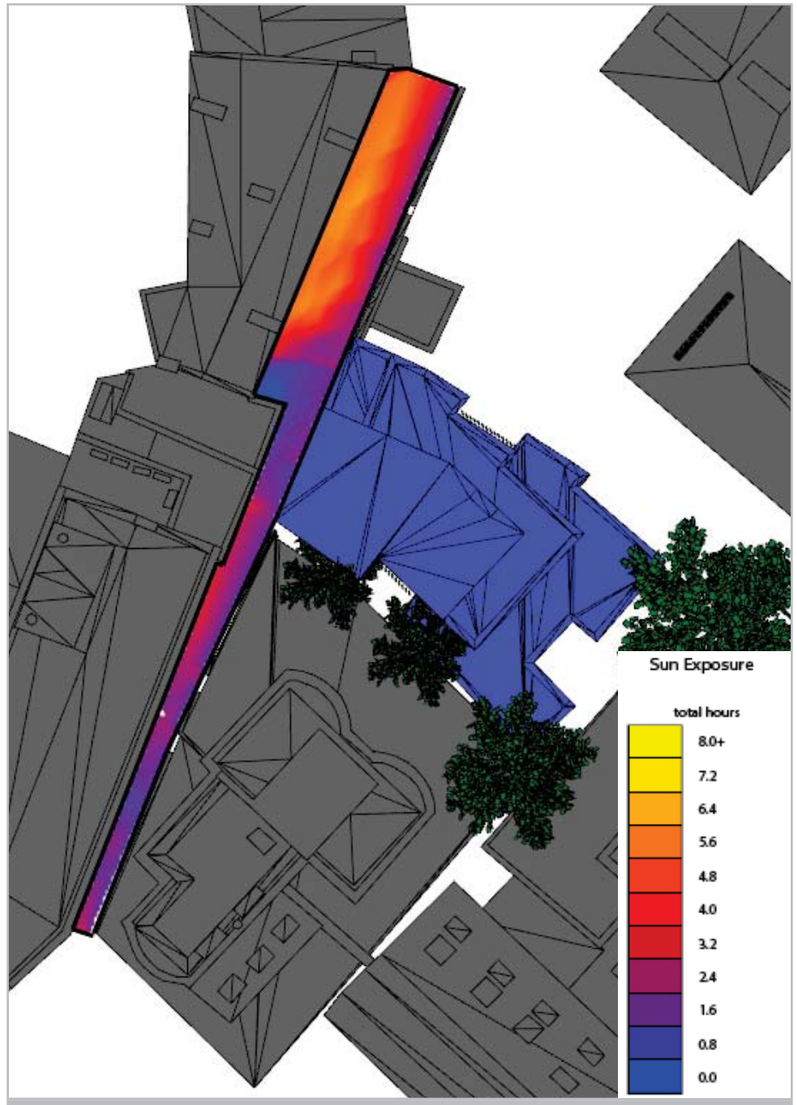
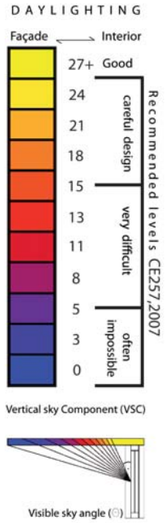


Figure 24: Top View - Proposed

Assessments Without Trees

Figure 25: Existing

Figure 26: Proposed



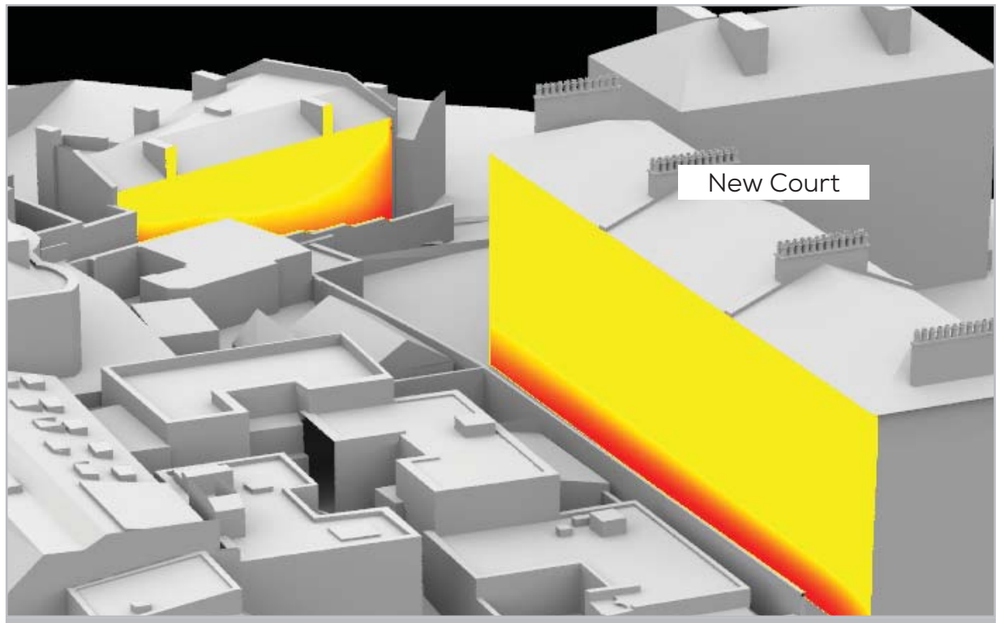


Figure 27: Existing

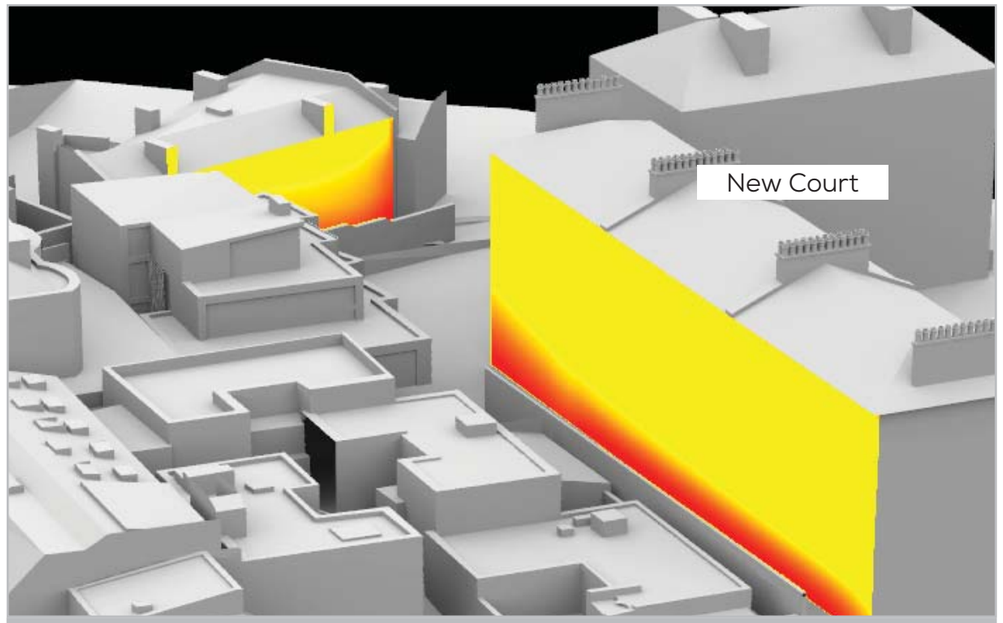
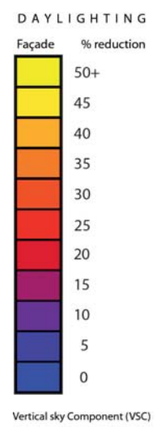


Figure 28: Proposed



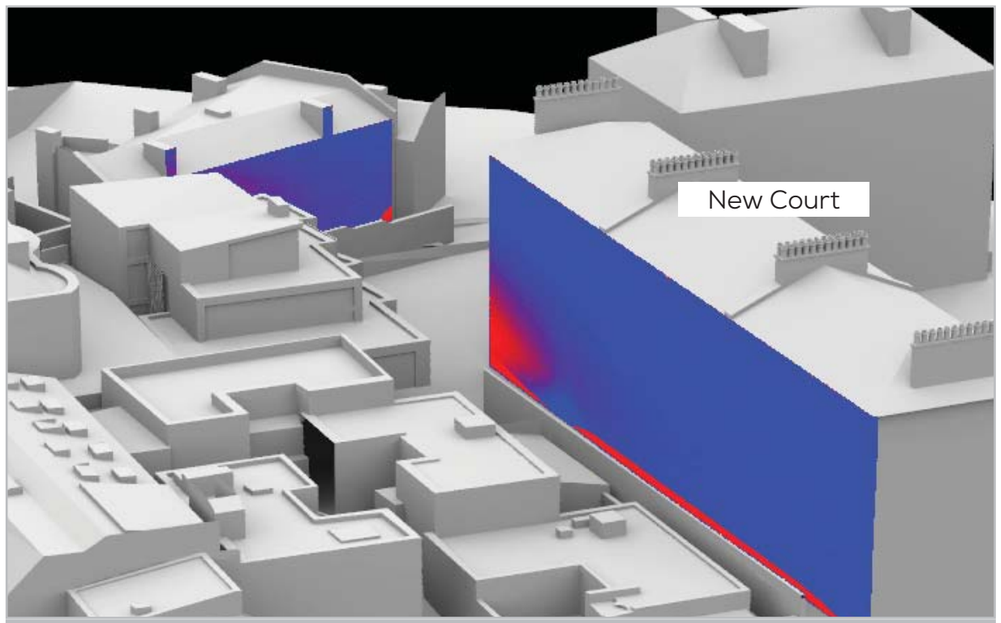
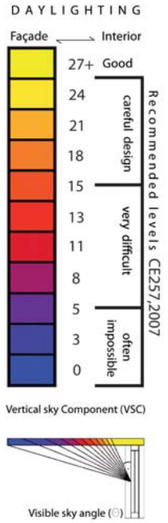


Figure 29: Percentage Loss



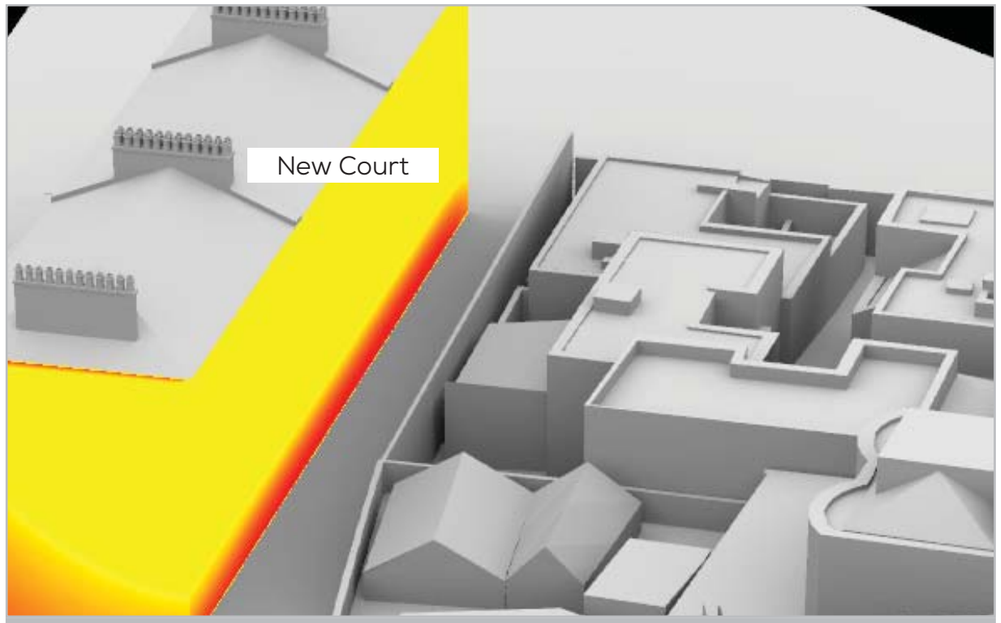
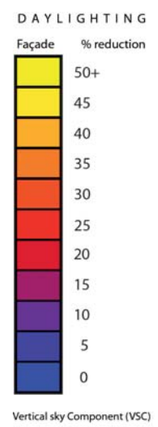


Figure 30: Existing

Figure 31: Proposed



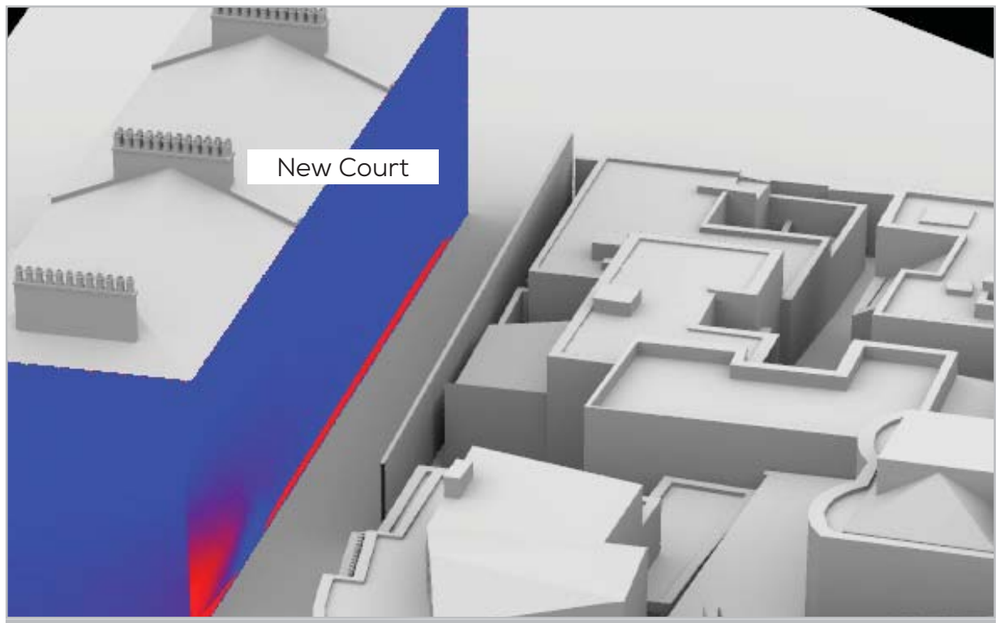
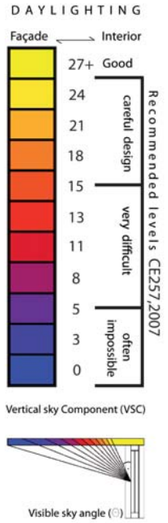


Figure 32: Percentage Loss



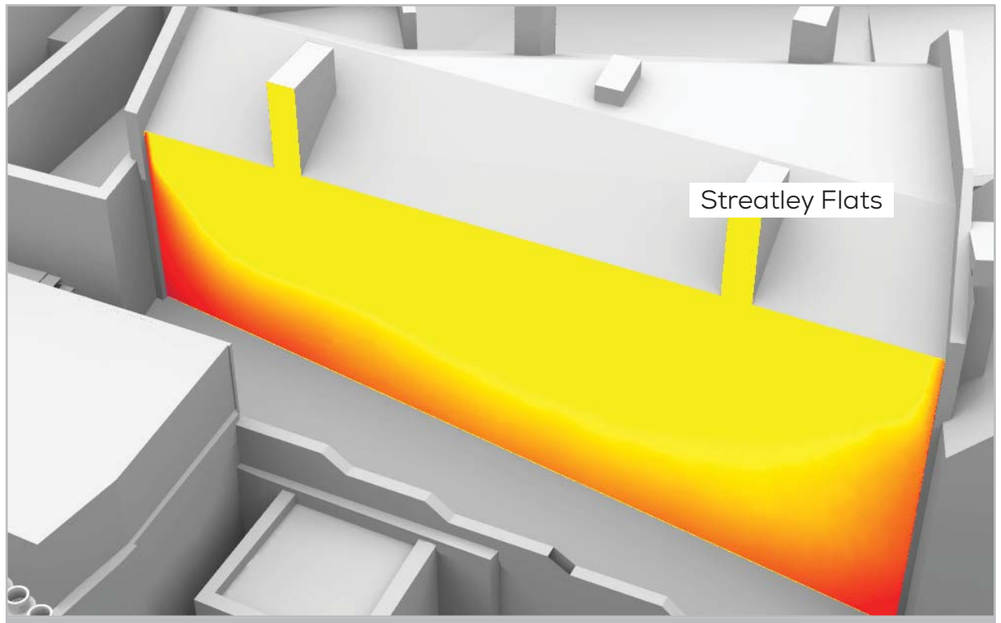


Figure 33: Existing

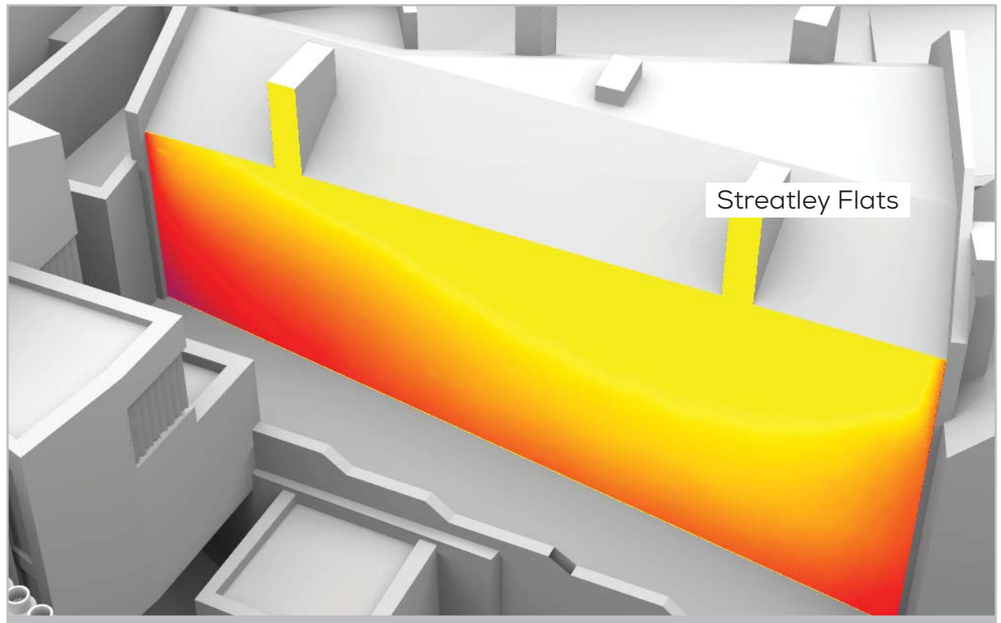
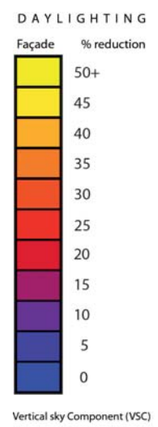


Figure 34: Proposed



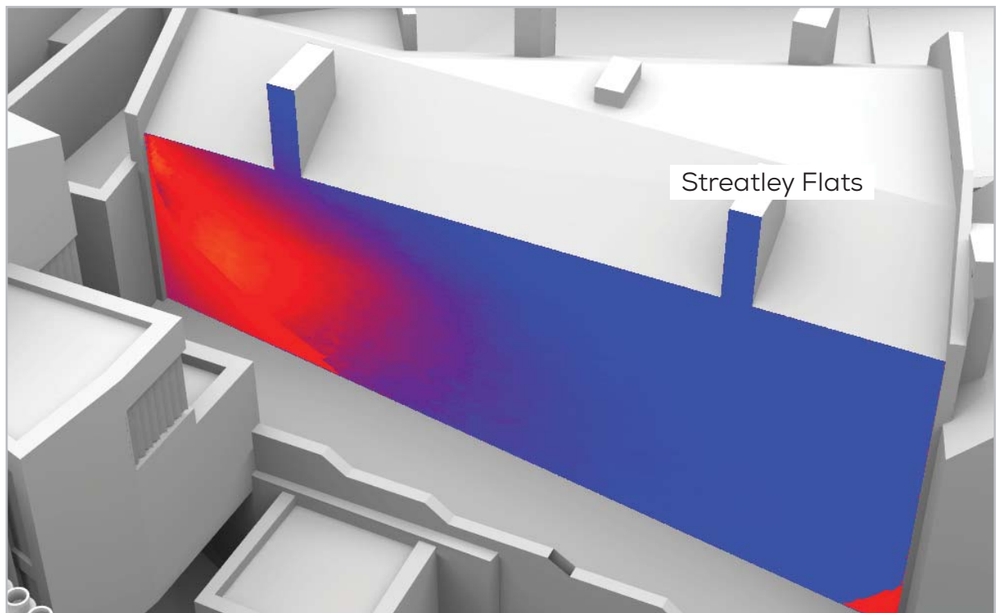


Figure 35: Percentage Loss

VSC	Existing	Proposed	Loss	% Loss
Window 1	25	19.5	5.5	22
Window 2	25.3	21.2	4.1	16.2
Window 3	21.4	14.6	6.8	31.8
Window 4	31.3	27.6	3.7	11.8
Window 5	31.8	23.4	8.4	26.4

Table 5: VSC Assessment Results

APSH	Existing		Proposed		Loss		% Loss	
	Total	Winter	Total	Winter	Total	Winter	Total	Winter
Window 1	55	13	41	12	14	1	25.5	7.7
Window 2	41	9	32	2	9	7	22	77.8
Window 3	25	2	10	0	15	2	60	100
Window 4	53	18	46	11	7	7	13.2	38.9
Window 5	49	15	36	5	13	10	26.5	66.7

Table 6: APSH Assessment Results

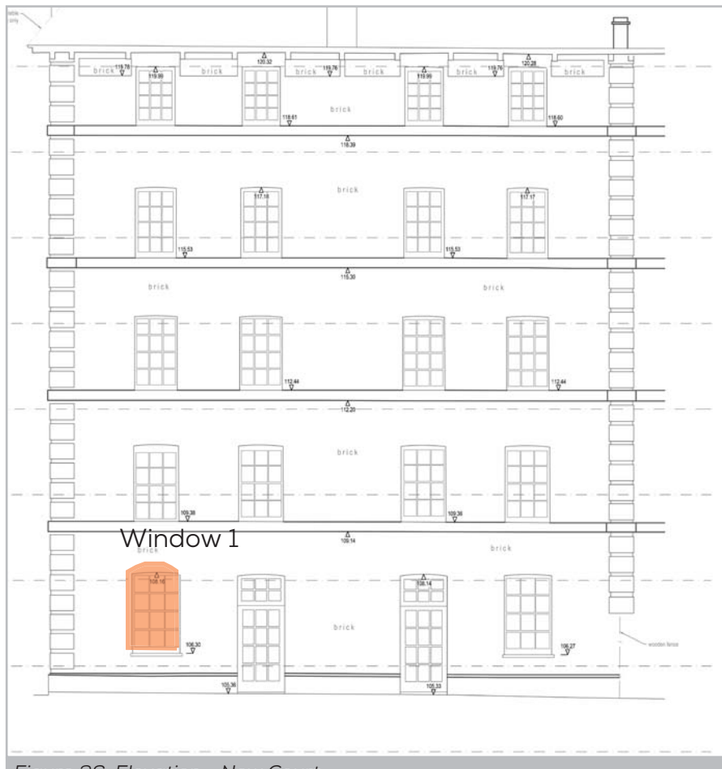


Figure 36: Elevation - New Court

Figure 37: Elevation - Streatley Flats

VSC	Consented	Proposed	Loss	% Loss
Window 1	20	19.5	0.5	2.5
Window 2	22.5	21.2	1.3	5.8
Window 3	16.6	14.6	2	12
Window 4	28.9	27.6	1.3	4.5
Window 5	25.5	23.4	2.1	8.2

Table 7: VSC Assessment Results

APSH	Consented		Proposed		Loss		% Loss	
	Total	Winter	Total	Winter	Total	Winter	Total	Winter
Window 1	40	13	41	12	-1	1	-2.5	7.7
Window 2	35	3	32	2	3	1	8.6	33.3
Window 3	16	0	10	0	6	0	37.5	0
Window 4	47	12	46	11	1	1	2.1	8.3
Window 5	39	5	36	5	3	0	7.7	0

Table 8: APSH Assessment Results

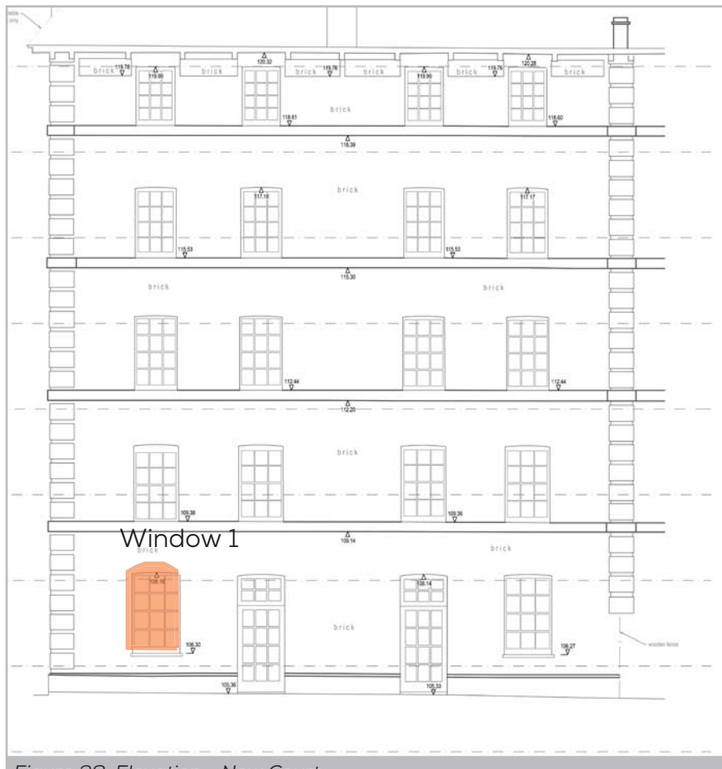


Figure 38: Elevation - New Court

Figure 39: Elevation - Streatley Flats

Figure 40: Top View - Existing

Figure 41: Top View - Consented

Figure 42: Top View - Proposed

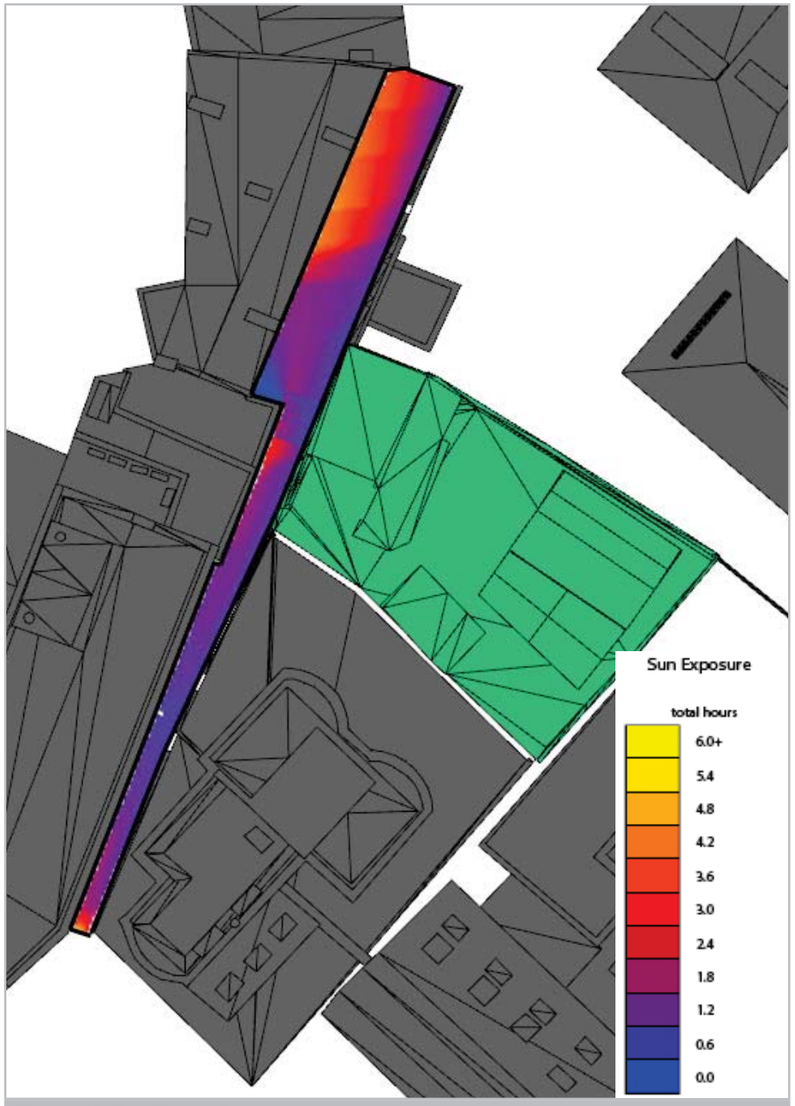


Figure 43: Top View - Existing

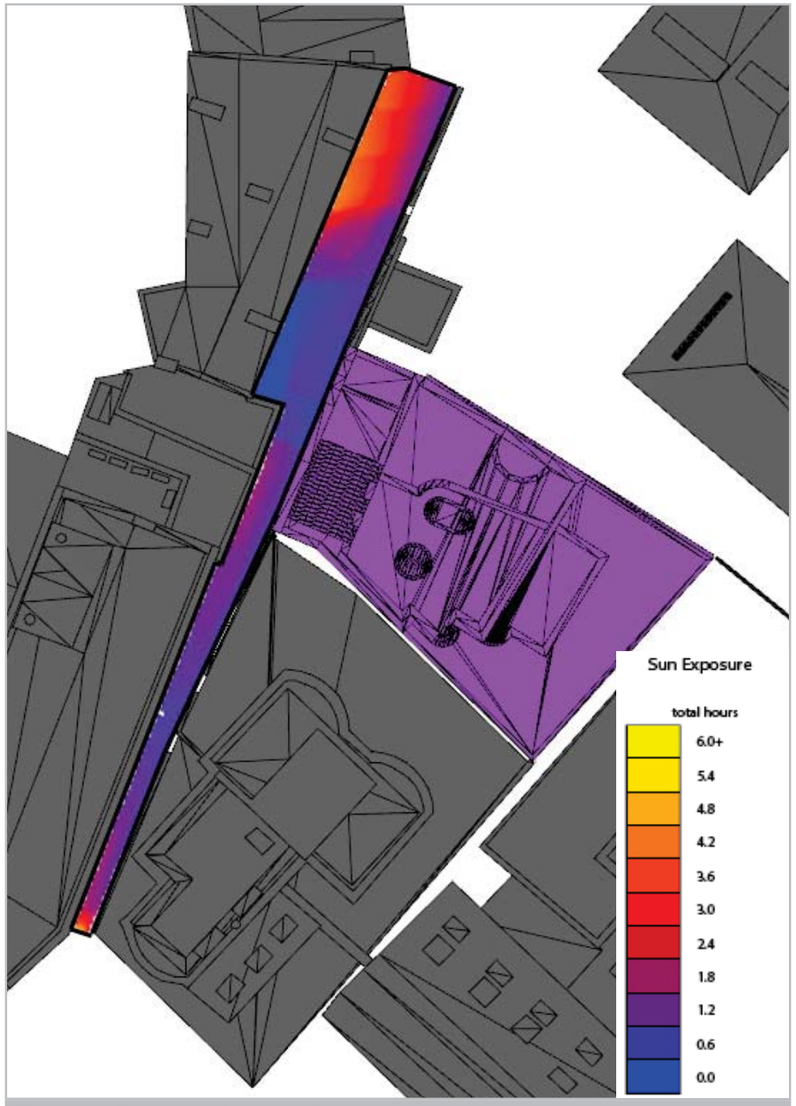


Figure 44: Top View - Consented

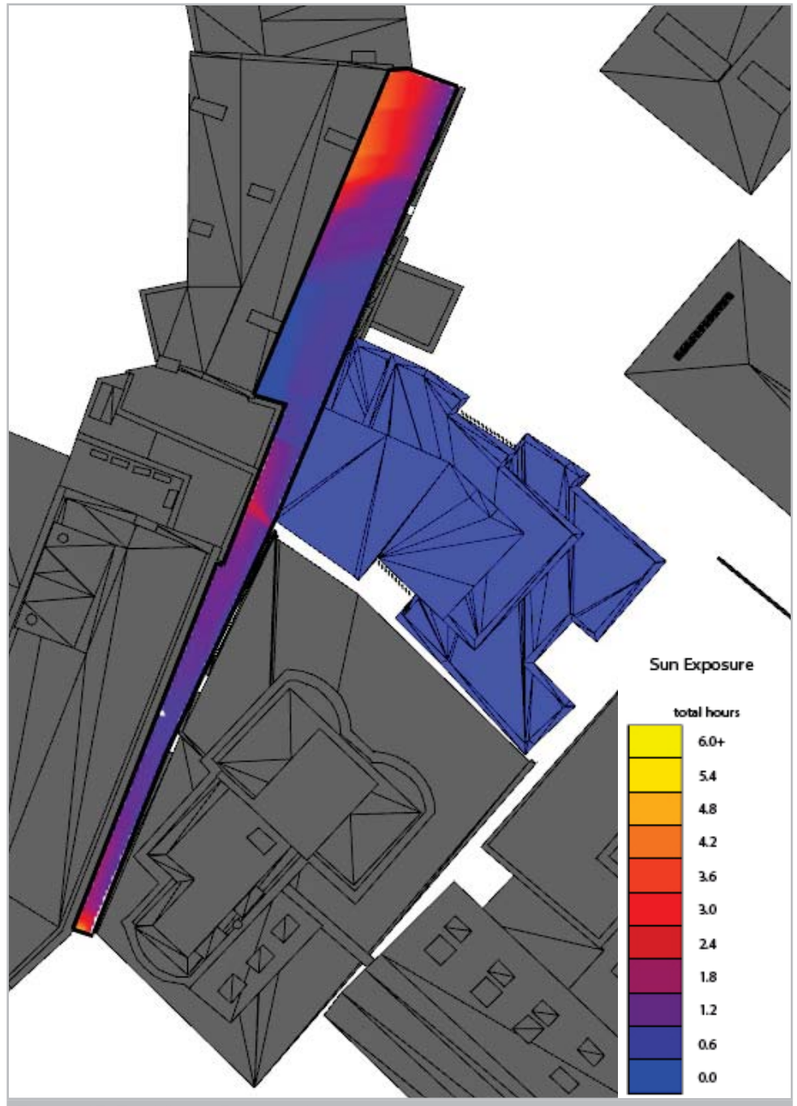


Figure 45: Top View - Proposed

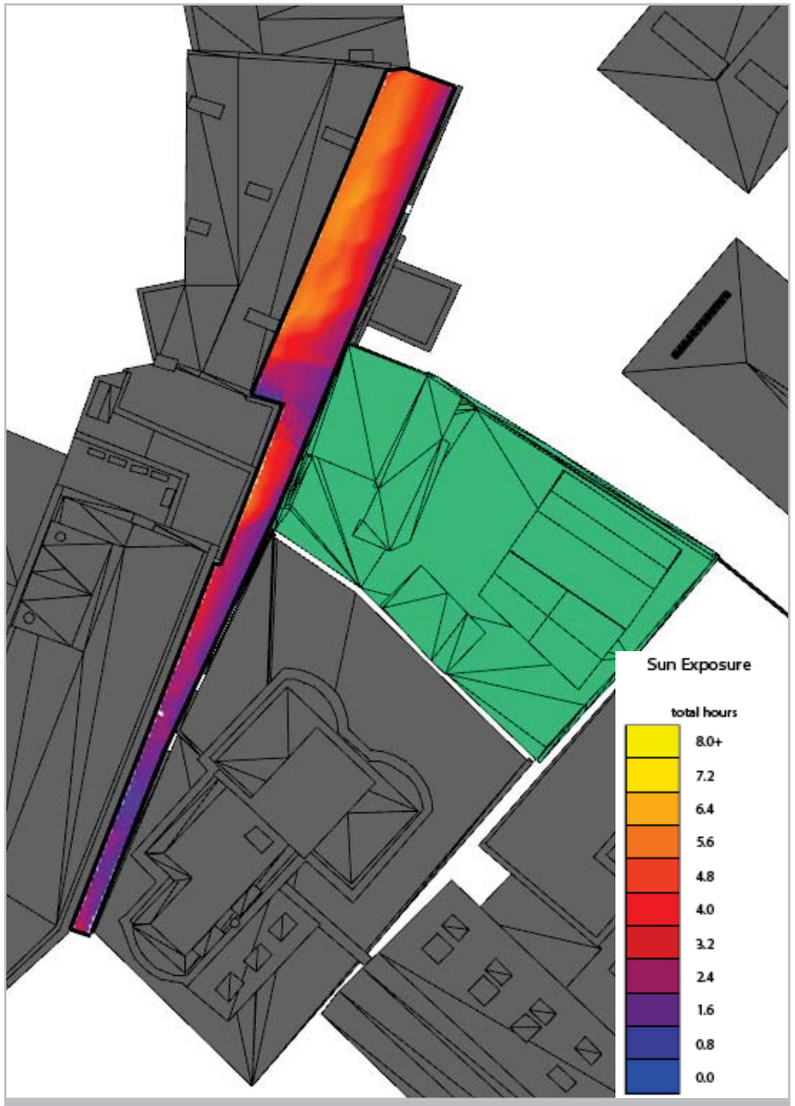


Figure 46: Top View - Existing

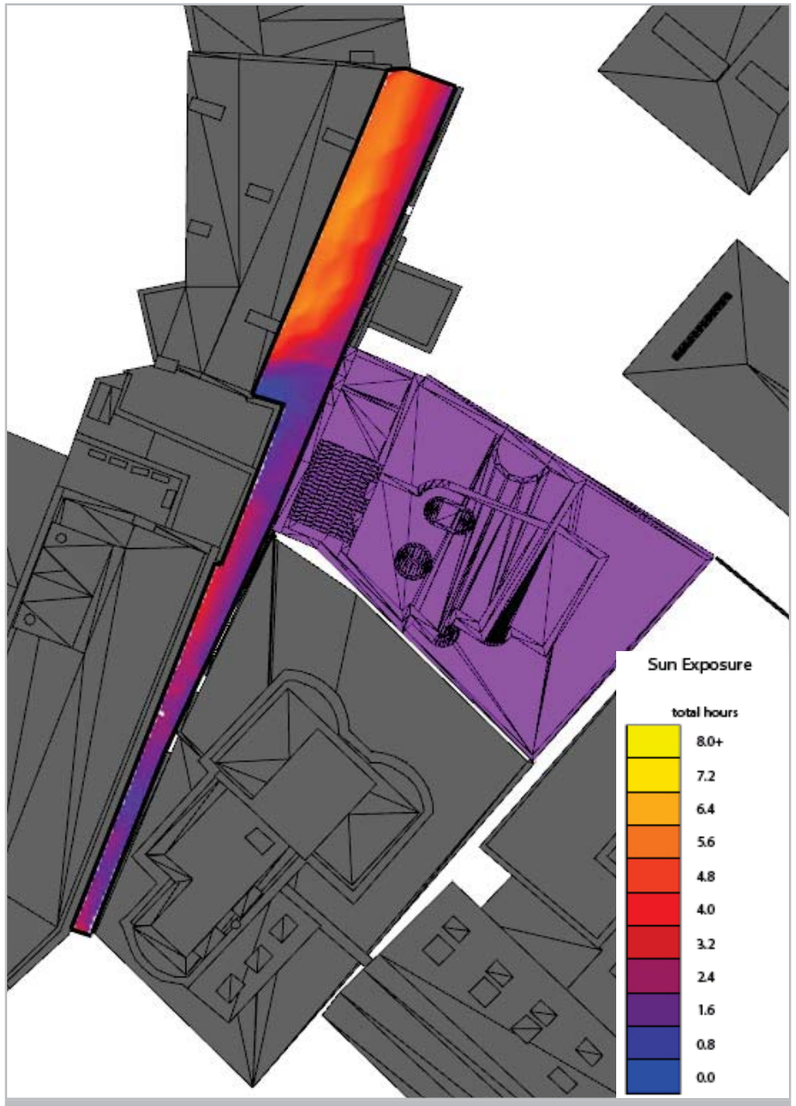


Figure 47: Top View - Consented

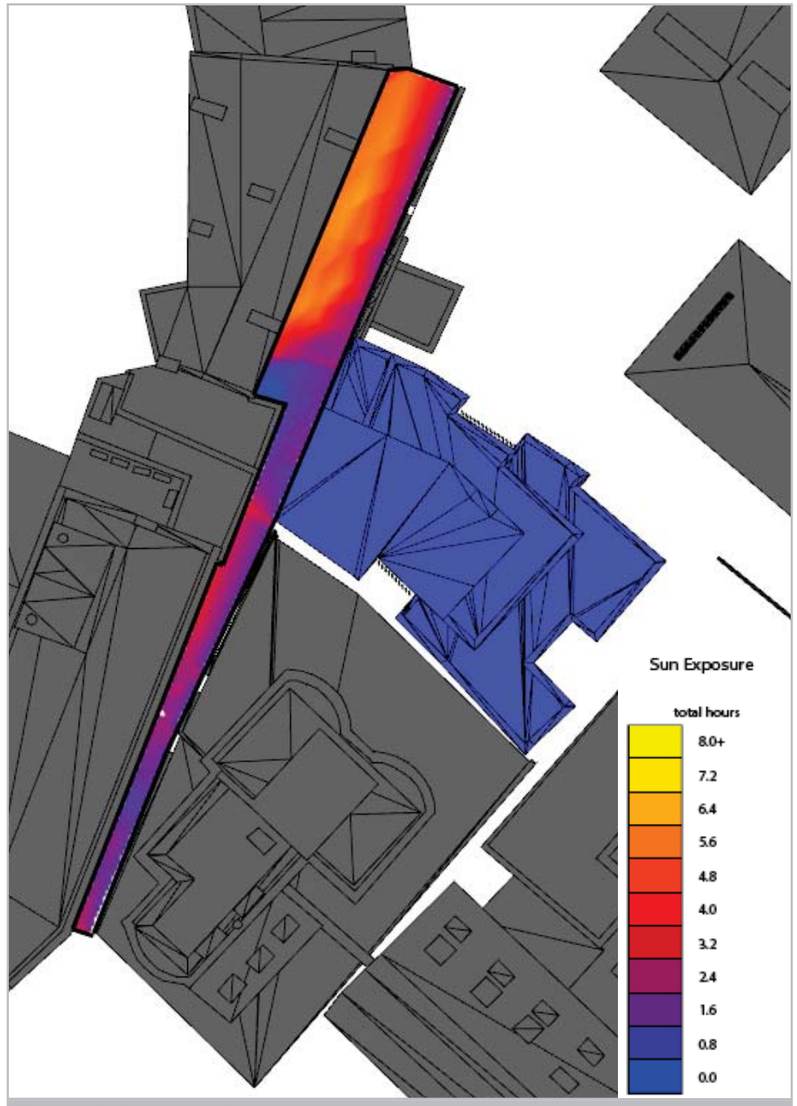


Figure 48: Top View - Proposed